# Attachment #\_\_\_\_\_\_Page\_\_\_\_\_of\_\_\_\_\_\_\_

## **Board of County Commissioners**

Inter-Office Memorandum

Date:

June 20, 2003

To:

Parwez Alam, County Administrator

From:

Gary W. Johnson Growth and Environmental Management

Subject:

Mayor/Chair Discussion to Establish a Joint City/County Stormwater

Committee

At the February 18, 2003 Board meeting, the Commission directed "staff to study the establishment of a Joint City/County Stormwater Committee and the development of a formula for determining stormwater fees based on the impervious surface and other factors that affect runoff." Attachment #1 are photocopies of the agenda request and minutes addressing this issue.

To accomplish this goal, staff is recommending that this issue be discussed at the next Mayor/Chair meeting to obtain the approval from the City to authorize their staff to meet with County staff to work on this task.

Membership on the committee should consist of the following City and County positions.

- 1. Leon County Public Works Chief of Stormwater Engineering
- 2. Leon County Director of Environmental Compliance Division
- 3. Tallahassee-Leon County Environmental Planner
- 4. Tallahassee Land Use And Environmental Administrator
- 5. Tallahassee Director Stormwater Management Division

During a December 1994 workshop, the City and County Commissions jointly decided a committee of City and County staff should be formed to review various elements of the local stormwater programs for the purpose of making recommendations for improvement. Attachment #2 is a photocopy of the Joint City/County Stormwater Committee Final Report dated May 31, 1995. The final report was never jointly accepted by the governing bodies because of the difference in the stormwater fees. This document can be used as a base for the new committee to build on.

The charge to this committee is to refine or expand on the 1995 Joint City/County Stormwater Committee Final Report. Also, the issue of a "formula for determining stormwater fees based on the impervious surface" was not recommended by the 1995 committee. This issue needs further discussions with a recommendation to the Commissions.

#### Attachments

cc: John Kraynak, Director, Environmental Compliance Division Theresa Heiker, Chief of Stormwater Engineering

# Board of County Commissioners Agenda Request

Date of Meeting:

February 18, 2003

Date Submitted:

February 13, 2003

To:

Members of the Board

From:

Tony Grippa

**County Commissioner** 

Subject:

Approval to Direct Staff to Study the Establishment of a Joint City/

County Stormwater Committee and Stormwater Fee Formula

#### Statement of Issue:

I would like for staff to provide the Board with different options for the establishment of a Joint City/County Stormwater Committee to comply with the Tallahassee-Leon County Comprehensive Plan. Staff should review the coordination of the various elements of the City's and County's stormwater programs, including plans to unify provisions for stormwater regulations, enforcement, maintenance, planning, operations and capital improvements. Furthermore, I would like to see various options for the development of a formula for use in the City and County to determine stormwater fees, based on the percentage of impervious surface area.

#### Options:

- 1. Direct staff to study the establishment of a Joint City-County Stormwater Committee and the development of a formula for determining stormwater fees.
- 2. Do not direct staff to study the establishment of a Joint City-County Stormwater Committee and the development of a formula for determining stormwater fees.
- 3. Board Direction.

#### Recommendation:

Option #1.

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Office of the Attorney General requesting reconsideration of federal intervention into the legal case opposing the University of Michigan's Affirmative Action and Diversity Admissions Policy.

The motion carried unanimously, 7/0.

Approval to Establish a Joint City/County Stormwater Committee

Chairman Grippa brought this item forward.

Commissioner Winchester moved and was duly seconded by Commissioner Sauls to approve Option 1: Direct staff to study the establishment of a Joint City-County Stormwater Committee and the development of a formula for determining stormwater fees based on the impervious surface and other factors that affect runoff.

The motion carried unanimously, 7/0.

The Board entered discussion under "Citizens to Be Heard."

#### Public Hearings

25. First and Only Public Hearing to Adopt an Ordinance Setting a Deadline for Requesting Quasi-Judicial Hearing

Pursuant to the following legal advertisement, a public hearing was conducted on whether to adopt an ordinance setting a deadline for requesting quasijudicial hearings before the Board of County Commissioners. (It includes language that requires parties to file in writing with the County Attorney a request for a quasi-judicial hearing at least one business day prior to the meeting at which the Board is scheduled to hear the item in question.)

Zoe Kulakowski, 1320 Blockford Court West, appeared and alleged that with limited advance notice, the affected party would have such little time to work something out or to have an opportunity to respond. County Attorney Thiele responded that this does not affect the other 15 and 30-day provisions for site plan review, etc. This is for situations where parties who qualify for a quasijudicial proceeding hearing cannot wait until the last moment or one day before a Commission meeting, before making a request to the Board for such a hearing.

Ms. Kulakowski also requested that the Board place the agenda on the Web sooner than Friday at 5:00 p.m. The Board indicated that the agenda would be put on the Web on Thursday by 5:00 p.m.

Commissioner Sauls moved and was duly seconded by Commissioner Maloy to approve Option 1: Conduct the first and only public hearing to adopt the ordinance setting forth a deadline for requests for quasi-judicial hearings.

The motion carried 6 - 1 (Commissioner Rackleff voted in opposition and

#### **Final Report**

#### JOINT CITY/COUNTY STORMWATER COMMITTEE

May 31, 1995

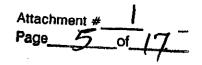
#### INTRODUCTION

During a December, 1994, workshop, the City and County Commissions jointly decided a committee of City and County staff should be formed to review various elements of the local stormwater programs for the purpose of making recommendations for improvement. In response to this direction, a committee consisting of the following individuals, was formed.

1.	Theresa Heiker	Leon County Public Works Department
2.	Gary Johnson	Assistant to the County Administrator
3.	Helge Swanson	Director of Environmental Permitting and Review Leon County Growth and Environmental Management
4.	Craig Diamond	Environmental Planner Tallahassee-Leon County Planning Department
5.	William Leseman	Water Quality Administrator Tallahassee - Water and Sewer Department
6.	John Buss	Director, Tallahassee-Stormwater Management Department

The charge to the Committee was to complete its work and report back to the two Commissions by June. Collectively, the individual members invested between 150 and 200 man hours deliberating various ideas and problems between late January and the end of May. A full accounting of the various elements of those discussions would make for a very long report. While this would perhaps provide additional insight into the Committee's views, such detail would also diminish emphasis from the conclusions. Consequently, to enhance readability and clarity, the Committee decided the report should be short and succinct. It is anticipated the joint workshop on this topic will provide ample opportunity to offer any insight and explanatory reasoning which might be desired.

Final Report City/County Stormwater Committee May 31, 1995 Page 2



#### COMMITTEE'S APPROACH

Very early in its process, the Committee identified a concern that the scope and detail of review would have to be managed, to insure it could be properly undertaken in the time frame provided with the resources available. Based on this consensus, it was decided the recommendations to the Commissions would have to be general in nature; outlining conceptual programmatic changes, but not developing full details relating to financial impact, implementation plans, and so forth. Development of full details would be a major undertaking, requiring resources beyond those available for assignment to this task. It was decided an alternative approach would be to first identify which (if any) of the recommendations the Commission wishes to pursue; and only then expend funding to develop the recommendations selected.

It should be understood that further development of some of the concepts discussed would require substantial legal and financial work by appropriate staff. Arrangements for adequate resources in terms of staffing and funding would be required.

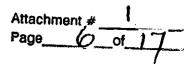
#### FRAMEWORK FOR DISCUSSION AND ANALYSIS

It quickly became evident the focus of ideas presented by individuals on the Committee, was largely dependent on perceptions as to what the primary goals should be for the local stormwater program. Consequently, for the Committee to reach any consensus on recommendations, it was necessary to establish basic agreement on what the fundamental stormwater program goals should be and their relative priority. To this end, the Committee established the four goals listed below.

Core Stormwater Program Goals				
Prevent Development of New Flooding Problems and Reduce or Mitigate the Negative Impacts of Existing Flooding Problems.	1st			
Enhance Operation and Maintenance of the Stormwater System Components.	2nd			
Conserve and Enhance Water Quality.	3rd			
Conserve and Enhance Water Bodies.	4th			

Several comments are warranted regarding these objectives. First, the list is short in recognition that in any business or service, there are usually only a handful of core activities which determine success or failure. You must address those core elements, or you fail. With the broad spectrum of local opinions on environmental matters, the local stormwater program will be subject to pressures to address more and more issues. Given fiscal constraints, the program will be ineffective at achieving its core objectives if it is allowed to drift into a multitude of subsidiary issues. The Committee felt it

Final Report City/County Stormwater Committee May 31, 1995 Page 3



important to acknowledge early on, the stormwater program cannot address everything that might be desirable. It cannot be all things to all people.

The prioritization of the core objectives was made possible by agreeing to a numerical ranking of goals from a group composite. Hence, the priorities are not a consensus, but a group average. This method allowed for a common ground among otherwise divergent views.

The discussion which led to agreement on the use of the composite, yielded several interesting points of view. For instance, a couple individuals indicated that while they actually believed water quality to be of higher priority than System O&M, they could accept O&M as a second priority, because better O&M has been identified as an important measure to improve the effectiveness of water quality facilities. Others indicated more direct support. They felt a majority of citizens would want to fund a higher level of O&M before they would want to fund an enhanced water quality program. Regardless of motivations, the Committee reached agreement that the community would be well served by addressing these objectives and that funding allocations should address the relative importance of the objectives.

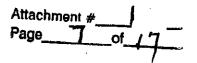
Having established the core stormwater program goals, the Committee then identified five interrelated elements of the stormwater program to be reviewed for possible program change recommendations. The program elements identified are indicated below:

- (1) Conveyance/impoundment system management, operations and maintenance.
- (2) Stormwater fees (financial arrangements).
- (3) Interlocal stormwater program coordination (consolidation?).
- (4) Regulations (primarily flood plain management related).
- (5) Ecological management program\* (natural system protection and enhancement).
- \* While not actually a stormwater program element (the relationship is actually the reverse), elements of the ecological mangement program were included in the analysis, because aspects of it are by definition, stormwater issues.

#### RECOMMENDATIONS

Having organized its approach as described above, the Committee spent numerous meetings analyzing and debating ideas and potential recommendations. The following is an inventory of those ideas which the Committee recommends to the respective Commissions for consideration. Again, some qualifying comments are required.

Final Report City/County Stormwater Committee May 31, 1995 Page 4

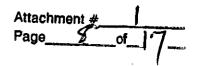


Some of the recommendations or concepts may appear to be inconsistent or even contradictory. This can occur because some recommendations, are by necessity, dependent upon other decisions. An example would be that funding methodology depends somewhat upon program structure. If a county wide stormwater authority were to be formed, it is probable that a dedicated ad valorem tax would be the best funding mechanism, due to legal constraints put on non ad valorem assessments.

The recommendations are grouped according to the five program elements identified previously.

## 1 Conveyance/impoundment system management, operations and maintenance.

- 1.1 The Committee recommends providing a much higher level of service and extent of service, in terms of operation and maintenance.
  - Strong Committee consensus exists for substantially enhanced O&M activities. It is one of the core service categories on which to build the rest of the program.
  - Providing better O&M will address citizen (customer) issues;
     e.g. reduce complaints regarding erosion, overgrown and blocked conveyances, and overgrown and sediment choked stormwater ponds, and will at the same time have a significant beneficial impact on water quality.
  - One of the roles of government is to perform services that the marketplace will not address, or which cannot be addressed for other institutional reasons. Ditch and pond maintenance and general O&M certainly fits that description. Much more is needed.
- 1.2 The Committee recommends investing in a detailed stormwater system Facilities Plan.
  - This is needed for development of a true drainage system. It should size conveyances, culvert crossings and SW facilities for future and existing conditions, layout and plan for easements etc.
     Comprehensive SW Plans are far too general for true system operations.
  - A Facilities Plan will aid in quantifying current and future capital
    investment shortfalls with regard to meeting the community's desired
    level of service. It is a tool, with which, government can logically
    begin to organize the competing funding priorities issue. Through
    such planning, the community can decide to either reduce
    expectations or increase annual investment (probably some of both).



- 1.3 The Committee recommends significantly increasing governmental ownership of (or responsibility for) the primary drainage system.
  - · Necessary for system operations and for proper maintenance.
  - Acquire easements (or other property interests) along the interconnected primary, and to the extent necessary, secondary, drainage system.
  - These easements are for system O&M and system control, although management and use opportunities consistent with O&M needs, should be considered.. The easements would not extend onto offlying or off-system ponds.
- 1.4 Remodel the primary drainage system using new technology and newly available storm flow data. Include future as well as existing conditions. Use for facility planning, easements, setting flood plain restrictions etc. This planning task should become an iterative process.

### 2 Stormwater fees (financial arrangements).

Due to a historical lack of investment in stormwater infrastructure, immense investment will be required to establish an adequate drainage system. Given the level of investment required, it is not realistic to expect it will ever be accomplished with stormwater fees alone. However, once established, the system could be maintained, expanded, and operated with stormwater fees.

The lack of capital investment in stormwater infrastructure has resulted in a sort of Catch 22 situation. To provide acceptable service, an adequate stormwater system must be developed. This will take capital and a long period of time. Stormwater fees of the magnitude required to generate the accessary capital cannot be levied, because with service charges at that level, the customer would expect (and rightly so) to receive adequate service. Adequate service will not be developed for some time. Charging rates of that level would be analogous to sending out gas bills before you build the gas system.

For the above reasons, the City and County Commissions should look at outside revenues, such as sales tax, gas tax, or general obligation bond revenues, to supplement the stormwater infrastructure shortfall. If this is not done, then all related planning should recognize that conditions are not going to improve significantly beyond the current state of affairs. Making this decision and acknowledging the result, is important in terms of defining what level of service is to be provided. Documents such as the Tallahassee/Leon Comprehensive Plan need to be based on and reflect fiscal reality.

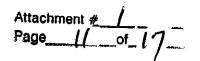
- 2.1 The Committee recommends raising the stormwater fee to \$7.50 per ERU per month and to thereafter move toward a "cost of service" basis.
  - Improvement has to start somewhere. Revenues are far below the level required to meet citizen expectations. For example, the City could spend twice what it currently does on O&M and still not meet the expectations which many citizens have for a drainage system. Increasing the fee from \$4.75 to \$7.50 per ERU would provide revenue to begin the process of addressing adequate O&M and the development of a detailed Facilities Plan.
  - After a one or two year period of attempting to deliver better O&M, better information will be available as to what true operating costs will be.
  - Ultimately, the goal should be to go to a "cost of service" basis. That is, you determine what level of service you plan to provide, you determine the total annual cost associated with providing it, and you set the rate to generate the revenue required. Cost of service does not imply variable rates by parcel.
  - Unless a "reality check" causes our community to scale back expectations such as those reflected in the Comprehensive Plan and those sometimes conveyed through day to day requests, annual stormwater expenditures in the range of \$350 to \$500 per acre are likely to be necessary. In terms of stormwater rates, using the City as an example with its 80 square miles of jurisdiction, this translates into rates in the range of \$13 to \$18 per ERU per month.
- 2.2 The Committee recommends funding operation and maintenance, and facilities planning from stormwater fees, and funding all or a major portion of stormwater CIP infrastructure and lake restoration projects from sales tax, gas tax, and/or general obligation bond revenues.
  - Revenue generation from sales tax is approximately \$21 million per penny.
  - Revenue generation from gas tax is approximately \$1 million per penny.
  - Revenue generation from ad valorem taxes (to amortize general obligation bonds or directly fund a program) is approximately \$3.7 million per mil in the City, \$5.5 million County wide, and \$1.8 million per mil in just the un-incorporated area.

- 2.3 Due to constraints on the use of non-ad valorem fees billed on the ad valorem tax bill, Leon County should consider abandoning the utility fee concept and instead establish a dedicated drainage tax.
- 2.4 Other minor revenue enhancement techniques exist, but they are not adequate to address the overall revenue short fall. Additionally, there are overhead, equity and potential legal shortcomings associated with these.
  - 2.4.1 Assess stormwater fees on undeveloped property. Assess a base fee to all property and a surcharge can be placed on top of the base fee for properties which have impervious area. The undeveloped property fee would have to address varying soil percolation potentials.
  - 2.4.2 Consider differential rates, by land use class; e.g., residential, commercial/institutional, industrial, if the City and County Commissions decide to pursue substantial increased revenues to attack the stormwater problem in a meaningful way.
- 3 Interlocal stormwater program coordination (consolidation?).

The issues related to this program area are complex. Depending on the program structure, the effects can reach beyond the stormwater field. Hence, it was not possible to reach a clear determination on the matter of forming a single stormwater "entity".

Identified below are some of the Committee's concerns regarding this topic. Following those are recommendations regarding what structure to use if a combined program is desired and recomendations for improving the separate programs, if the event that structure is retained.

If one excludes the effects of problems related to organizational interconnections and funding methodology, from a customer service standpoint a single stormwater "entity" would be in the best interest of the customer. It would establish a single point of governmental accountability and it would also internalize policy disagreements which are frequently mis-identified as simply coordination issues. This would aid in resolving them. Unfortunately, one cannot exclude the effects of organizational interconnections and funding methods. As a result, the desirability of consolidating the City and County stormwater programs into a single program, is not a certainty.



Depending on the structure of a consolidated program, the result may be less effective for the citizens of one government or the other; possibly both. Although consolidation may provide an opportunity for enhanced operational effectiveness, complications could cancel out any gains.

Organizational problems include:

- Operational interconnections between the drainage function aspects of the Street Departments in both governments with their respective stormwater programs.
- Operational interconnections with permitting and regulatory operations.
- Loss of direct control by one or the other local governments, both if
  a Stormwater Authority were formed. This has implications not only
  with regard to policy direction and the ability to be responsive to
  citizens, but also needed coordination with "other" functions; e.g.
  road projects, sewer projects, etc. Interlocal stormwater activities
  may end up being very well coordinated, but coordination with other
  interconnected activities may suffer.

Funding methodology problems include consideration of the constraints associated with the fundamental basis of revenue generation (i.e. a tax, a user fee, or a special assessment) and the physical billing method.

- The ad valorem tax is the least constrained (most flexible) of the revenue generation methods. Based on property value, there is no requirement that revenue be related to runoff from the property or that it be used in a manner which directly relates to stormwater at all.
- A user fee (billed on a utility bill) is the next least constrained
  method. While it must show a reasonable nexus between the fee and
  runoff from parcels, and the revenue must be expended on uses
  relating directly to stormwater management, there is no requirement
  that the uses provide a special and direct benefit to a specific
  property.
- A stormwater non-ad valorem assessment is the most constrained of the revenue generation methods. It must be related to runoff and the uses of the revenue must also provide a special benefit (not general benefit) to the properties which were assessed. This may require that all funds for a project be generated within the direct zone of benefit of the project. This could be a major obstacle from a master planned system development standpoint.

Any decision regarding consolidation must include careful consideration of billing methodology and the associated constraints.

- A County wide Utility (i.e. user fee billed by monthly mailing) would lack an effective collection enforcement mechanism.
- A County wide non-ad valorem assessment billed on the ad valorem tax bill would have the zone of benefit constraint.
- A County wide ad valorem tax, or a MSTU, would miss tax exempt property. Below are figures to consider in evaluating the significance of this problem.

Stormwater revenue from tax exempt properties is roughly estimated to generate 22% of the City's total stormwater revenue. With the current rate of \$4.75 per ERU, the lost revenue would be approximately \$1.6 million annually. If rates are raised to \$7.50 per ERU to address higher service levels, the lost revenue would climb to \$2.5 million annually.

- 3.1 If the City and County Commissions desire a single stormwater "entity", the following recommendations and comments are offered.
  - 3.1.1 Utilize a separate Stormwater Authority (MSTU) with a separate board and funding, independent of either local government. This is a structure that lends itself to fulfilling the stormwater mission.
    - An independent board can focus on stormwater issues and not have to become knowledgeable about all the competing issues of government. The same is true regarding competing funding needs.
    - The independent board and single staff will help eliminate deadlocks related to policy issues and differing City and County priorities.
  - 3.1.2 Don't utilize a joint City/County Department. There are real policy differences between the City and County and such a structure does not resolve them. Instead, the result is likely to be a marginally effective organization.
  - 3.1.3 A Stormwater Authority will probably need to be supported by ad valorem taxes due to:
    - Identified problems with non ad valorem assessments
    - The lack of an effective collection enforcement system, if billed as a utility, independent of the City's consolidated utilities.

- 3.1.4 Ultimately, the Commission's should first independently and, if warranted then jointly, discuss some of the elemental pros and cons of a combined structure. If those concerns are not so substantial as to preclude unfeigned consideration of a single entity, then additional study of the concept should be funded. The objective in this approach is to avoid a wasteful study and evaluation of a concept, which is not actually ever going to be acceptable to one or both of the parties.
- 3.2 If a single stormwater "entity" is <u>not</u> created, formal mechanisms for coordination of the City and County programs must be developed and should include the following:
  - 3.2.1 Establishment of a consensus on joint City and County priorities and objectives, with which either government could evaluate the effectiveness of project proposals and decide whether to jointly participate, regardless of project location in terms of local government jurisdiction.
  - 3.2.2 A structured process to coordinate joint projects and project schedules in the City and County capital improvement programs.
  - 3.2.3 When a project is determined to be satisfactorily effective, in the context of each local government's priorities and competing objectives, joint funding could be on a pro rata basis similar to the methods used on the joint Killearn project, or by any other mutually agreeable method.
  - 3.2.4 Consistent with the established effectiveness and priority planning criteria, consider joint City/County participation in receiving waterbody mitigation, including projects such as those identified for Lake Jackson, Munson, and Lafayette, where large volumes of polluted stormwater from urbanized areas have seriously degraded lake ecological conditions and functions.
  - 3.2.5 Establish a repository for monitoring data and ensure that monitoring/research functions are coordinated. Monitoring emphasis should be to determine the specific needs for (and impacts to) prioritized watersheds and water bodies.

### **Evaluation of Alternative City and County Stormwater Program Structures**

		Operational Issues				Funding Issues		
Alternative Structures for City and County Stormwater Programs	Planing	Capital Improvements	Operations & Maintenance	Administration	Collection & Enforcement Mechanism	Tax Exempt Property Issue	Non-ad valorem Zone of Benefit Constraint Issue	
<ol> <li>No change from current arrangements.</li> </ol>		2.5	2	3	5 3	5 2	5 1	City County
2 No change except implement procedures to coordinate CIP Program.	<b>A</b> :	3(5)	<b>:3</b> []	n ji kun <b>g</b> an	5 3	5 2	5 I	City County
2(a) Same as #2, except County implements a MSTU in Unincorporated Areas.		<b>33</b>	\$ <b>(8</b>	2	5 4	5	5 5	City County
3 County takes over all drainage. Implements a MSTU County wide.	5	<b>.5</b> .	<b>5</b> .	. <b>,\$</b>	NA 4	NA I	NA 5	City County
4 County contracts with City to administer drainage in Unincorporated Areas; funded with MSTU in Unincorporated Area.	<b>5</b> .	. <b>5</b> - }	.5	**************************************	5 4	5 . 1	5.5	City County
5 Independent Stormwater Authority funded with County wide MSTU.	5	\$	A.		NA NA 4	NA NA I	NA NA NA 5	City County Authority

#### Notes:

a. 1 = Not Very Effective.

b. 5 = Very Effective.

c. Ratings in shaded cells reflect relative potential effectiveness of the organizational structures without consideration of potential offsetting performance hindrances related to funding mechanisms. Nor are they an assessment of actual comparative performance.

d. Scores in un-shaded cells assess funding issues related to the various funding mechanisms associated with each structure.

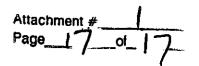
- 4 Regulations (primarily flood plain management related).
  - 4.1 Establish local flood maps based on expected densities consistent with the future land use designations in the Comprehensive Plan. Develop methods and formats to manage the local government's liability as the mapping agency.
  - 4.2 Redefine current flood plain mapping to include various gradations including the 100 year, 50 year, 25 year, 10 year, and annual/seasonal flood plains. This will facilitate evaluation of options for acquisition and regulatory protection on a site specific basis, for planning, management, and restoration projects. These activities should be closely coordinated with stormwater management initiatives.
  - 4.3 Recognize the effect which land use designations have on stormwater quantity and quality in the land use planning decision making process.
  - 4.4 Where appropriate, establish Special Developement Zones for major water bodies.
  - 4.5 Ban all new habitable structures in the future development 100-year flood plain. This concept is a flooding regulation; all ecological flood plain regulations such as limiting development in undisturbed flood plains would still apply.
  - 4.6 Investigate amending the building code, so that in areas where detailed flood stage data is unavailable, finished floors would have to be two feet (or some set distance) higher than the pop off elevation above the limiting culvert in the downstream drainage path. Usually this would be a street center line elevation above a cross drain culvert.
  - 4.7 Change or clarify local regulations to require that all stormwater facilities have adequate accessibility and are designed to facilitate operation and maintenance, even when proposed to be privately owned.

#### 5 Ecological management program

5.1 Ensure the ecological management program is coordinated with, but does not preclude, achieving the structural elements of the community's stormwater management goals. This can be done by ensuring that elements of the ecological management program, recognize the special infrastructural needs of areas of urban density, and that in these areas, preservation and even conservation goals are already limited by the pervasive impacts of urban land uses. Conversely, this requires that

future urban densities be avoided in remnant natural areas where self sustaining ecological functions remain, such as forested flood plains, meandered creeks and streams, natural wetlands and many outlying rural ponds and lakes.

- 5.1.1 Coordinate ecological management studies and land use planning, with watershed studies and basin management plans, to avoid setting preservation goals in areas where the impacts of urban densities require planning on an infrastructure basis and to avoid imposing infrastructure into preservation and conservation areas. To implement this strategy, it is recommended the drainage system be mapped and classified. Classifications should include:
  - Urban System Zones: where conditions are managed for efficient and effective surface water disposition.
  - Special Environmental Management Zones: where predetermined site objectives are pursued via management and structural intervention including water quality treatment and flood control projects, and where encroachments are allowed, consistent with the area management objectives.
  - Conservation Zones: where existing conditions are managed toward specified natural ecological characteristics and nonstructural encroachments (including natural water management) and passive uses are allowed.
  - Preservation Zones: where natural or existing successional ecological conditions are preserved and encroachments are not allowed or are extremely limited.
- 5.1.2 Recognize the focus for the preservation and natural area management aspects must be geographically focused on lands outside the urbanized area, in recognition that with urbanization, natural ecology will be degraded and that more intensive and intrusive management interventions are required to support urban service levels. The goal therefore is to go to the non-urban areas and concentrate efforts there, where existing densities do not preclude success.
- 5.2 Recognize that by protecting and preserving natural elements of aquatic ecosystems, that millions of dollars in future water quality and flood control costs can be avoided. This benefit is in addition to the many intrinsic values and functions of natural and self sustaining systems.



5.2.1 Emphasis should be given to implementation of an environmentally sensitive land use planning methodology in and around surface water features and in problem watersheds to avoid making land use decisions that are likely to produce adverse water quality and quantity or hydro-cycle impacts, necessitating costly structural interventions in the future.

#### **CONCLUSION**

During the deliberations of any committee, the distinction between consensus and simply a majority opinion, can sometimes become blurred. On any single topic, a given individual may, or may not, be fully supportive of some of the ideas. For this reason the Committee wishes to acknowledge consensus on the following recommendations.

- 1. Fund a much higher level of service and extent of service, in terms of operation and maintenance.
- 2. Fund detailed, coordinated and ongoing stormwater system facility planning, including related modeling and mapping activities.
- 3. Increase the extent of governmental responsibility for the primary drainage system.
- 4. Raise the stormwater fee to \$7.50 per ERU per month and thereafter move toward a "cost of service" basis, while recognizing that unless a "reality check" causes our community to scale back expectations, fees in excess of twice that amount are likely to be necessary.
- 5. Fully fund or supplement stormwater capital spending from sales tax, gas-tax, and/or general obligation bond revenues.
- 6. Establish flood maps which reflect flood stages based on future land uses and require that development be designed based on this information.
- 7. Ban all new habitable structures in the flood plain.

  While there was consensus for such a ban, there was some disagreement on whether it should apply to the 100 year or 25 year flood plain.
- 8. Ensure the ecological management program is coordinated with, but can accommodate, the structural elements of the community's stormwater management goals. The drainage system should be mapped and classified into Preservation Zones, Conservation Zones, Special Environmental Management Zones, and Urban System Zones.